Claims:

1. A working fluid composition comprising:
(A) a heat transfer fluid comprising a mixture of at least two compounds selected from the group consisting of hydrofluoroalkanes and fluoroalkanes; and
(B) sufficient to provide lubrication of a lubricant which is at least partially soluble in each component of the heat transfer fluid.

2. A working fluid composition as claimed in claim 1 wherein the heat transfer fluid (A) comprises at least two hydrofluoroalkanes selected from the group consisting of difluoromethane, 1,1,2,2-tetrafluoroethane, 1,1,1,2-tetrafluoroethane, pentafluoroethane, 1,1-difluoroethane, 1,1,1-trifluoroethane and 1,1,2-trifluoroethane.

3. A working fluid composition as claimed in claim 1 or claim 2 wherein the heat transfer fluid (A) comprises a mixture of:

(1) tetrafluoroethane;

(2) at least one hydrofluoroalkane selected from the group consisting of difluoromethane and 1,1,1-trifluoroethane; and optionally

(3) pentafluoroethane.

4. A working fluid composition as claimed in claim 3 wherein the tetrafluoroethane is 1,1,1,2-tetrafluoroethane.

5. A working fluid composition as claimed in claim 4 wherein the heat transfer fluid (A) is a binary mixture consisting essentially of 1,1,1,2-tetrafluoroethane and difluoromethane.

6. A working fluid composition as claimed in any one of claims 1 to 3 wherein the heat transfer fluid (A) comprises a ternary or higher mixture of:

(1) 1,1,1,2-tetrafluoroethane or 1,1,2,2-tetrafluoroethane;

(2) at least one hydrofluoroalkane selected from the group consisting of difluoromethane and 1,1,1-trifluoroethane; and optionally

(3) pentafluoroethane.

7. A working fluid composition as claimed in claim 6 wherein the heat transfer fluid (A) comprises a mixture of:

(1) 1,1,1,2-tetrafluoroethane or 1,1,2,2-tetrafluoroethane;

(2) difluoromethane or 1,1,1-trifluoroethane; and

(3) pentafluoroethane.

8. A working fluid composition as claimed in claim 7 wherein the heat transfer fluid (A) comprises a mixture of:

(1) 1,1,1,2-tetrafluoroethane;

(2) difluoromethane; and

(3) pentafluoroethane.

9. A working fluid composition as claimed in any one of the preceding claims wherein the lubricant (B) comprises at least one polyoxyalkylene glycol.

10. A working fluid composition as claimed in claim 9 wherein the lubricant (B) comprises at least one polyoxyalkylene glycol having the general formula:

$$A\ [-O-(CH_2CH(CH_3)O)_l(CH_2CH_2O)_m - Q]_x \qquad I$$

wherein

A is the residue remaining after removing the hydroxyl groups from a hydroxyl containing organic compound;

Q represents an optionally substituted alkyl, aralkyl or aryl group;

l and m are independently 0 or an integer provided that at least one of l or m is an integer; and

x is an integer,

said at least one polyoxyalkylene glycol having an average molecular weight in the range of from about 150 to about 3000.

11. A working fluid composition as claimed in any one of claims 1 to 8 wherein the lubricant (B) comprises at least one neopentyl polyol ester.

12. A working fluid composition as claimed in claim 11 wherein the lubricant (B) comprises at least one neopentyl polyol ester selected from the esters of pentaerythritol, dipentaerythritol, tripentaerythritol, trimethylol ethane, trimethylol propane and neopentyl glycol.

13. A working fluid composition as claimed in claim 11 or claim 12 wherein the lubricant (B) comprises one or more compounds of general formula:

$$R(O - \overset{\overset{O}{\|}}{C} - R^1)_n \qquad \text{II}$$

wherein

R is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol, dipentaerythritol, tripentaerythritol, trimethylol ethane, trimethylol propane or neopentyl glycol, or the hydroxyl containing hydrocarbon radical remaining after removing a proportion of the hydroxyl groups from pentaerythritol, dipentaerythritol, tripentaerythritol, trimethylol ethane, trimethylol propane or neopentyl glycol;

each R^1 is, independently, H, a straight chain (linear) aliphatic hydrocarbyl group, a branched

aliphatic hydrocarbyl group, or an aliphatic hydrocarbyl group (linear or branched) containing a carboxylic acid or carboxylic acid ester substituent, provided that at least one R^1 group is a linear aliphatic hydrocarbyl group or a branched aliphatic hydrocarbyl group; and

n is an integer.

14. A working fluid composition as claimed in claim 13 wherein the linear and branched hydrocarbyl groups specified for R^1 are unsubstituted and the carboxylic acid or carboxylic acid ester containing hydrocarbyl group specified for R^1 contains no other substituents.

15. A working fluid composition as claimed in claim 13 or claim 14 wherein the lubricant (B) comprises one or more compounds of Formula II in which R is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol, dipentaerythritol, tripentaerythritol, trimethylol ethane, trimethylol propane or neopentyl glycol.

16. A working fluid composition as claimed in claim 15 wherein the lubricant (B) comprises one or more compounds of Formula II in which R is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol, dipentaerythritol, trimethylol propane or neopentyl glycol.

17. A working fluid composition as claimed in claim 16 wherein the lubricant (B) comprises one or more compounds of Formula II in which R is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol, dipentaerythritol or trimethylol propane.

18. A working fluid composition as claimed in any one of claims 13 to 17 wherein the lubricant (B) comprises one or more compounds of Formula II in which each R^1

is, independently, a linear alkyl group or a branched alkyl group.

19. A working fluid composition as claimed in claim 18 wherein the lubricant (B) comprises one or more compounds of Formula II in which each R^1 is, independently, a C_{5-8} linear alkyl group or a C_{8-10} branched alkyl group.

20. A working fluid composition as claimed in claim 18 or claim 19 wherein at least one R^1 group is a linear alkyl group.

21. A working fluid composition as claimed in any one of claims 18 to 20 wherein at least one R^1 group is a linear alkyl group and at least one R^1 group is a branched alkyl group.

22. A working fluid composition as claimed in claim 11 or claim 12 wherein the lubricant (B) comprises one or more esters of general formula:

$$R^2(O - \overset{O}{\overset{\|}{C}} - R^3)_p \qquad \text{III}$$

wherein

R^2 is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol, dipentaerythritol or trimethylol propane;

each R^3 is, independently, a linear alkyl group or a branched alkyl group; and

p is an integer of 3, 4 or 6,

wherein one or more of the named polyols, one or more linear alkanoic acids, or esterifiable derivatives thereof, and optionally one or more branched alkanoic acids, or esterifiable derivatives thereof, are utilised in the synthesis of the ester.

23. A working fluid composition as claimed in claim 22 wherein a mixture of one or more linear alkanoic acids, or esterifiable derivatives thereof, and one or more branched alkanoic acids, or esterifiable derivatives thereof, are utilised in the synthesis of the ester.

24. A working fluid composition as claimed in claim 22 or claim 23 wherein the lubricant comprises one or more compounds of Formula III in which R^2 is the hydrocarbon radical remaining after removing the hydroxyl groups from pentaerythritol or dipentaerythritol.

25. A working fluid composition as claimed in any one of claims 22 to 24 wherein the lubricant (B) comprises one or more compounds of Formula III in which each R^3 is, independently, a C_{5-8} linear alkyl group or a C_{8-10} branched alkyl group.

26. The use of the working fluid composition claimed in any one of claims 1 to 25 in a heat transfer device.

27. A heat transfer device containing the working fluid composition claimed in any one of claims 1 to 25.